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look at the subtotals at the top level of the tree in order to understand how the product cost was divided between electrical and mechanical components. An electrical engineer can look at the subtotals for only the electrical sub-categories to see how the product cost was divided between passive components, active components, and connectors. A salesperson can develop a completely different categorization scheme based on target markets and use it to analyze product offerings by target market. The owner of system 100 can develop a categorization scheme that is independent of any user's schemes and employ the independent scheme to guide the placement of targeted advertising.

Replace "data fields 530" with "other data fields 630" pg 21 line 1

In the claims:

Kindly delete claims 1–3.

Kindly add the following claims 4–23:

4. A method for managing a plurality of bills of material (BOMs) comprising:

storing the plurality of BOMs in a processing system, each BOM describable as a tree with each node an element, each element in each BOM associated with an owner of a set of owners, each BOM associated with an owner of the set of owners,

such that BOMs associated with different owners are stored in the same processing system.

5. A method as recited in claim 4, wherein at least one of the BOMs includes confidential information of the owner of the BOM such that that unrestricted access to the confidential information is limited to the owner and any designates of the owner of the BOM.

6. A method as recited in claim 5, wherein the BOMs are stored remotely, and wherein access to the BOMs is provided remotely.

7. A method as recited in claim 4, wherein the storing of the BOMs includes:

storing one or more data structures in the processing system for storing the plurality of BOMs,

the method further comprising:

storing a list of elements in the a processing system, each element in the list of elements having a unique element identifier, each element in each BOM being one of the elements in the list of elements,

such that the list of elements and the one or more data structures are part of a database stored in the same processing system.

8. A method as recited in claim 7, further comprising:

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providing unrestricted access to any confidential information in a particular stored BOM only to the owner associated with the particular BOM and to none or more designates of the owner.

9. A method as recited in claim 4, wherein each of one or more elements in the element list is associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, the method further comprising:

restricting access to information about a particular element in the element list that is associated with a particular owner to the particular owner and none or more designates of the particular owner.

10. A method for managing a plurality of bills of material (BOMs) comprising:

storing a database in a processing system, the database including:

a list of elements, each element having a unique identifier, one or more elements of the list of elements being for inclusion in one or more of the plurality of BOMs; and

one or more data structures for storing the plurality of BOMs, each BOM describable as a tree with each node an element of the list of elements, each element in each BOM associated with an owner of a set of owners, each BOM associated with an owner of the set of owners,

providing remote access to one or more elements of information in the database to one or more users,

such that the database may contain two BOMS associated with two different owners.

11. A method as recited in claim 10, wherein at least one of the BOMs includes confidential information of the owner of the BOM such that that unrestricted access to the confidential information is limited to the owner and any designates of the owner of the BOM.

12. A method as recited in claim 10, wherein each of one or more elements in the element list is associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, the method further comprising:

restricting access to information about a particular element in the element list that is associated with a particular owner to the particular owner and none or more designates of the particular owner.

13. A method as recited in claim 11, wherein a first BOM of a first owner may share one or more elements of the list of elements with a second BOM of a second owner.

14. A method for managing a plurality of bills of material (BOMs) comprising:

storing a database in a processing system, the database including:

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a list of elements, each element having a unique identifier, one or more of the elements being for inclusion in at least one of the BOMs; and

one or more BOM data structures for storing the plurality of BOMs, each BOM describable as a tree with each node an element of the list of elements and each branch of the tree defining a parent-child relationship, the one or more BOM data structures storing information on the parent-child relationships of the plurality of BOMs, each BOM associated with an owner of a set of owners,

providing remote access to one or more elements of information in the database to one or more users,

such that the database may contain BOMS having different owners.

15. A method as recited in claim 14, wherein the database includes confidential information of at least one of the owners such that that unrestricted access to the confidential information is limited to the owner and any designates of the owner.
16. A method as recited in claim 15, wherein the confidential information of an owner that owns a BOM in the stored plurality includes confidential information in the BOM of the owner.
17. A method as recited in claim 15, wherein providing remote access includes providing remote access via a public network.
18. A method as recited in claim 17, wherein the public network is the Internet.
19. A method as recited in claim 15, wherein each of one or more elements in the element list is associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, and wherein the confidential information of an owner that owns a element in the list of elements includes confidential information in the list of elements such unrestricted access to confidential information about a particular element in the element list that is associated with a particular owner is limited to the particular owner and none or more designates of the particular owner.
20. A method as recited in claim 15, wherein a first BOM of a first owner may share one or more elements of the list of elements with a second BOM of a second owner.
21. A method as recited in claim 14, wherein each element in the element list is one the set consisting of a physical element and a process, wherein the physical element may itself be a BOM and wherein the process that may reference a set of steps or operations.
22. A method as recited in claim 14, wherein each BOM data structure is for storing the parent-child relationships for at least one BOM of the plurality of BOMs, and wherein a BOM data structure includes, for a particular BOM, an entry for each element in the

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particular BOM, said element entry including a reference to the element's entry in the list of elements, an entry indicating the owner, and an entry indicating any child of the element in the case the element has a child in the tree representing the particular BOM.

23. A method as recited in claim 22, wheréin the parent child relations for all the BOMS are stored in a single BOM data structure.

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a list of elements, each element having a unique identifier, one or more elements of the list of elements being for inclusion in one or more of the plurality of BOMs; and

one or more data structures for storing the plurality of BOMs, each BOM describable as a tree with each node an element of the list of elements, at least one element in a two or more of the BOMs associated with an owner of a set of owners, two or more of the BOM being associated with a respective owner of the set of owners, and

providing remote access to one or more elements of information in the database to one or more users,

such that the database may contain two BOMS associated with two different owners.

12. A method as recited in claim 10, wherein one or more elements in the element list are associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, the method further comprising:

restricting access to information about a particular element in the element list that is associated with a particular owner to the particular owner and none or more designates of the particular owner.

14. A method for managing a plurality of bills of material (BOMs) comprising:

storing a database in a processing system, the database including:

a list of elements, each element having a unique identifier, one or more of the elements being for inclusion in at least one of the BOMs; and

one or more BOM data structures for storing the plurality of BOMs, each BOM describable as a tree with each node an element of the list of elements and each branch of the tree defining a parent-child relationship, the one or more BOM data structures storing information on the parent-child relationships of the plurality of BOMs, two or more of the BOM being associated with a respective owner of the set of owners, and

providing remote access to one or more elements of information in the database to one or more users,

such that the database may contain BOMS having different owners.

16. A method as recited in claim 15, wherein a BOM of a particular owner includes confidential information, and wherein the confidential information of the particular owner includes the BOM confidential information.¹⁹ A method as recited in claim 15, wherein one or more elements in the element list is associated with a respective owner of the set of owners, wherein the list of elements includes an

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indication of ownership for each element associated with one of the owners, and wherein the confidential information of an owner that owns a element in the list of elements includes confidential information in the list of elements, such that unrestricted access to confidential information about a particular element in the element list that is associated with a particular owner is limited to the particular owner and none or more designates of the particular owner.

21. A method as recited in claim 14,

wherein an element in the element list is one of the set consisting of a physical element and a process, wherein the physical element may itself be a BOM, and wherein the process may reference a set of steps or operations.

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DETAILS OF AMENDMENTS TO THE CLAIMS

7. (Amended) A method as recited in claim 4, wherein the storing of the BOMs includes:

storing one or more data structures in the processing system for storing the plurality of BOMs,

the method further comprising:

storing a list of elements in the processing system, each element in the list of elements having a unique element identifier, each element in each BOM being one of the elements in the list of elements,

such that the list of elements and the one or more data structures are part of a database stored in the same processing system.

10. (Amended) A method for managing a plurality of bills of material (BOMs) comprising:

storing a database in a processing system, the database including:

a list of elements, each element having a unique identifier, one or more elements of the list of elements being for inclusion in one or more of the plurality of BOMs; and

one or more data structures for storing the plurality of BOMs, each BOM describable as a tree with each node an element of the list of elements, ~~each at least one element in each BOM~~ ~~a two or more of the BOMs~~ associated with an owner of a set of owners, ~~each~~ ~~two or more of the BOM being associated with an-a respective owner of the set of owners, and~~

providing remote access to one or more elements of information in the database to one or more users,

such that the database may contain two BOMs associated with two different owners.

12. (Amended) A method as recited in claim 10, wherein each of one or more elements in the element list is associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, the method further comprising:

restricting access to information about a particular element in the element list that is associated with a particular owner to the particular owner and none or more designees of the particular owner.

14. (Amended) A method for managing a plurality of bills of material (BOMs) comprising:

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storing a database in a processing system, the database including:

a list of elements, each element having a unique identifier, one or more of the elements being for inclusion in at least one of the BOMs; and

one or more BOM data structures for storing the plurality of BOMs, each BOM describable as a tree with each node an element of the list of elements and each branch of the tree defining a parent-child relationship, the one or more BOM data structures storing information on the parent-child relationships of the plurality of BOMs, each two or more of the BOM being associated with a respective owner of the set of owners, and

providing remote access to one or more elements of information in the database to one or more users,

such that the database may contain BOMs having different owners.

16. (Amended) A method as recited in claim 15, wherein a BOM of a particular owner includes confidential information, and wherein the confidential information of the particular owner includes the BOM confidential information of an owner that owns a BOM in the stored plurality includes confidential information in the BOM of the owner. 19. (Amended) A method as recited in claim 15, wherein each of one or more elements in the element list is associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, and wherein the confidential information of an owner that owns a element in the list of elements includes confidential information in the list of elements,

such that unrestricted access to confidential information about a particular element in the element list that is associated with a particular owner is limited to the particular owner and none or more designees of the particular owner.

21. (Amended) A method as recited in claim 14,

wherein each element in the element list is one of the set consisting of a physical element and a process, wherein the physical element may itself be a BOM, and wherein the processthat may reference a set of steps or operations.

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AMENDMENT(S) TO THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims on the application. Claims being amended are set forth in a larger font than all other claims. All claims are set forth below with one of the following annotations.

- (Original): Claim filed with the application following the specification.
- (Currently amended): Claim being amended in the current amendment paper.
- (Previously amended): Claim not being currently amended, but which was amended in a previous amendment paper.
- (Cancelled): Claim cancelled or deleted from the application.
- (Withdrawn): Claim still in the application, but in a non-elected status.
- (Previously added): Claim added in an earlier amendment paper.
- (New): Claim being added in the current amendment paper.
- (Reinstated - formerly claim # _): Claim deleted in an earlier amendment paper, but re-presented with a new claim number in current amendment.
- (Previously reinstated): Claim deleted in an earlier amendment and reinstated in an earlier amendment paper.
- (Re-presented - formerly dependent claim # _): Dependent claim re-presented in independent form in current amendment paper.
- (Previously re-presented): Dependent claim re-presented in independent form in an earlier amendment, but not currently amended.

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Previously added) A method for managing a plurality of bills of material (BOMs) comprising:
 - storing the plurality of BOMs in a processing system, each BOM describable as a tree with each node an element, each element in each BOM associated with an owner of a set of owners, each BOM associated with an owner of the set of owners,such that BOMs associated with different owners are stored in the same processing system.
5. (Previously added) A method as recited in claim 4, wherein at least one of the BOMs includes confidential information of the owner of the BOM such that unrestricted access to the confidential information is limited to the owner and any designates of the owner of the BOM.
6. (Previously added) A method as recited in claim 5, wherein the BOMs are stored remotely, and wherein access to the BOMs is provided remotely.
7. (Previously Amended) A method as recited in claim 7, wherein the storing of the BOMs includes:

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storing one or more data structures in the processing system for storing the plurality of BOMs,

the method further comprising:

storing a list of elements in the processing system, each element in the list of elements having a unique element identifier, each element in each BOM being one of the elements in the list of elements,

such that the list of elements and the one or more data structures are part of a database stored in the same processing system.

8. (Previously added) A method as recited in claim 7, further comprising:

providing unrestricted access to any confidential information in a particular stored BOM only to the owner associated with the particular BOM and to none or more designates of the owner.

9. (Previously added) A method as recited in claim 4, wherein each of one or more elements in the element list is associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, the method further comprising:

restricting access to information about a particular element in the element list that is associated with a particular owner to the particular owner and none or more designates of the particular owner.

10. (Currently amended) A method for managing a plurality of bills of material (BOMs) comprising:

storing a database in a processing system, the database including:

a list of elements, each element having a unique identifier, one or more elements of the list of elements being for inclusion in one or more of the plurality of BOMs; and

one or more data structures for storing the plurality of BOMs, each BOM describable as a tree with each node an element of the list of elements, ~~at least one element in a two or more of the BOMs associated with an~~ respective owner owners of a set of owners, two or more of the BOM BOMs being associated with a respective owner of the set of owners, and

providing remote access to one or more elements of information in the database to one or more users,

such that the database may contain two BOMs associated with two different owners.

11. (Previously added) A method as recited in claim 10, wherein at least one of the BOMs includes confidential information of the owner of the BOM such that that unrestricted access to the confidential information is limited to the owner and any designates of the owner of the BOM.
12. (Previously amended) A method as recited in claim 10, wherein one or more elements in the element list are associated with a respective owner of the set of owners, and wherein the list of elements includes an indication of ownership for each element associated with one of the owners, the method further comprising:

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restricting access to information about a particular element in the element list that is associated with a particular owner to the particular owner and none or more designates of the particular owner.

13. (Previously added) A method as recited in claim 11, wherein a first BOM of a first owner may share one or more elements of the list of elements with a second BOM of a second owner.
14. (Currently amended) A method for managing a plurality of bills of material (BOMs) comprising:

storing a database in a processing system, the database including:

a list of elements, each element having a unique identifier, one or more of the elements being for inclusion in at least one of the BOMs; and

one or more BOM data structures for storing the plurality of BOMs, each BOM describable as a tree with each node an element of the list of elements and each branch of the tree defining a parent-child relationship, the one or more BOM data structures storing information on the parent-child relationships of the plurality of BOMs, two or more of the BOM BOMs associated with a respective owner of the set of owners, and

providing remote access to one or more elements of information in the database to one or more users,

such that the database may contain BOMS having different owners.

15. (Previously added) A method as recited in claim 14, wherein the database includes confidential information of at least one of the owners such that that unrestricted access to the confidential information is limited to the owner and any designates of the owner.
16. (Currently Amended) A method as recited in claim 15, wherein a BOM of a particular owner includes confidential information, and wherein the confidential information of the particular owner includes the BOM confidential information~~an owner that owns a BOM in the stored plurality includes confidential information in the BOM of the owner.~~
17. (Previously added) A method as recited in claim 15, wherein providing remote access includes providing remote access via a public network.
18. (Previously added) A method as recited in claim 17, wherein the public network is the Internet.
19. (Currently Amended) A method as recited in claim 15, wherein each of one or more elements in the element list is associated with a respective owner of the set of owners, ~~and~~ wherein the list of elements includes an indication of ownership for each element associated with one of the owners, and wherein the confidential information of an owner that owns a element in the list of elements includes confidential information in the list of elements,
such that unrestricted access to confidential information about a particular element in

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the element list that is associated with a particular owner is limited to the particular owner and none or more designates of the particular owner.

20. (Previously added) A method as recited in claim 15, wherein a first BOM of a first owner may share one or more elements of the list of elements with a second BOM of a second owner.
21. (Previously amended) A method as recited in claim 14, wherein each element in the element list is one the set consisting of a physical element and a process, wherein the physical element may itself be a BOM and wherein the process that may reference a set of steps or operations.
22. (Previously added) A method as recited in claim 14, wherein each BOM data structure is for storing the parent-child relationships for at least one BOM of the plurality of BOMs, and wherein a BOM data structure includes, for a particular BOM, an entry for each element in the particular BOM, said element entry including a reference to the element's entry in the list of elements, an entry indicating the owner, and an entry indicating any child of the element in the case the element has a child in the tree representing the particular BOM.
23. (Previously added) A method as recited in claim 22, wherein the parent child relations for all the BOMS are stored in a single BOM data structure.